What is claimed is:

1. A semiconductor laser device with an oscillation wavelength of 770 to 810 nm, comprising:

a semiconductor substrate of a first conductivity type;

a first clad layer of the first conductivity type disposed on said semiconductor substrate;

an active layer of a quantum well structure disposed on said first clad layer;

a first second-clad layer of a second conductivity type disposed on said active layer;

a disordered region formed near a laser resonator facet by introducing impurities from a surface of said first second-clad layer into the layers including said active layer on said semiconductor substrate; and

an optical waveguide including a second second-clad layer of the second conductivity type disposed on the surface of said first second-clad layer in a manner opposite to said active layer in said disordered region across said first second-clad layer, said optical waveguide extending in a resonator lengthwise direction;

wherein if λ dpl is assumed to denote in nm the wavelength of photo luminescence generated by application of pumped light to said disordered region and λ apl to represent in nm the wavelength of photo luminescence generated by application of pumped light to said active layer, and if a blue shift amount λ bl in nm is defined as equal to λ apl − λ dpl, then the blue shift amount λ bl meets a condition of

λ bl $\geqq$ 20.

2. A semiconductor laser device according to claim 1,

wherein, if Pcod is assumed to denote in mW a COD level of the laser device, then the blue shift amount λ bl in nm further meets a condition of

$$(Pcod - 85)/5.6 \leqq \lambda\ bl \leqq (Pcod - 135.0)/1.3.$$

3. A semiconductor laser device according to claim 1, further comprising insulating films disposed on said first second-clad layer and on sides of said optical waveguide but not over a top portion of said optical waveguide.

4. A semiconductor laser device according to claim 2, further comprising insulating films disposed on said first second-clad layer and on sides of said optical waveguide but not over a top portion of said optical waveguide.

5. A semiconductor laser device according to claim 1, further comprising a current blocking layer of the first conductivity type disposed so as to bury said optical waveguide on said first second-clad layer.

6. A semiconductor laser device according to claim 2, further comprising a current blocking layer of the first conductivity type disposed so as to bury said optical waveguide on said first second-clad layer.

7. A semiconductor laser device fabricating method including the steps of:

firstly forming a first clad layer of a first conductivity type, an active layer of a quantum well structure, and a first second-clad layer of a second conductivity type successively on a semiconductor substrate of the first conductivity type;

secondly forming on a surface of the first second-clad

layer a mask pattern for impurity implantation having an opening in a region where a resonator facet of a semiconductor laser device is expected to be formed;

thirdly disordering the active layer near the resonator facet by introducing impurities with the mask pattern for introducing impurity used as a mask;

fourthly applying pumped light to the disordered region to generate photo luminescence therefrom, and measuring a wavelength of the photo luminescence as a basis for predicting a level ~~of~~ COD degradation;

fifthly forming a second second-clad layer of the second conductivity type on the surface of said first second-clad layer after removing the mask pattern;

sixthly forming on a surface of the second second-clad layer a stripe-shaped mask pattern in a manner opposed to the disordered active layer across the first and the second second-clad layer, the stripe-shaped mask pattern extending in a resonator lengthwise direction; and

seventhly forming an optical waveguide including the second second-clad layer with the stripe-shaped mask pattern used as a mask.

8. A semiconductor laser device fabricating method according to claim 7, wherein, if the semiconductor laser device has an oscillation wavelength of 770 to 810 nm; if λ dpl is assumed to denote in nm the wavelength of photo luminescence generated by application of pumped light to the disordered region and λ apl to represent in nm the wavelength of photo luminescence generated by application of pumped light to the active layer; and if a blue shift amount λ bl in nm is defined as equal to λ apl - λ dpl, then the blue shift amount λ bl meets a condition of

$\lambda bl \geqq 20$

when said fourth step is carried out.

9. A semiconductor laser device fabricating method according to claim 8, wherein, if Pcod is assumed to denote in mW a COD level of the laser device, then the blue shift amount λ bl in nm further meets a condition of

$$(Pcod - 85)/5.6 \leqq \lambda bl \leqq (Pcod - 135.0)/1.3.$$